



COUNTY OF SAN DIEGO

# FLEAS



## THE FLEA

**FLEAS** are small, wingless, brown to brownish-black insects. Their thin bodies allow them to hop, jump, or move quickly through hair or feathers. Fleas are usually brought inside a house by dogs, cats, or other furry pets.

The adult flea needs human or animal blood in order to live and reproduce. Fleas normally feed on pets, but hungry fleas will attack people, usually biting around the ankles and legs.

Some fleas can carry diseases, such as plague, murine typhus, and certain tapeworms. Fleas can inflict painful itching bites. Their bites can also possibly cause allergic reactions such as swelling and rashes.

## FLEA HIDING PLACES

Fleas lay tiny white eggs on the pet which drop off and hatch where pets spend most of their time. Such indoor areas can be a chair, rug, or the pet's bedding. Outdoor areas can be the dog house or other areas used by the pet. In a few days, the eggs hatch into larvae, which then form pupae (cocoons). The pupae soon become biting adult fleas.

## PREVENTION AND CONTROL OF FLEAS

### PREVENTION IS THE FIRST LINE OF DEFENSE

**INTEGRATED PEST MANAGEMENT (IPM)** - IPM is a strategy for managing pest populations with the least hazard to people, pets, and the environment. Toxic chemicals are used as the last resort in the IPM strategy. To prevent and control fleas, use the least toxic strategies first.

**PETS** - Groom your pet daily with a fine-toothed metal comb which is available in most pet stores. Fleas captured on the comb should be dropped into warm soapy water and flushed down the toilet. Fleas are attracted to dry chapped skin. Keep your pet's skin healthy.

Herbal repellents, insecticidal soaps and less toxic insecticides are available for use on pets, their bedding, floors and furniture. Carefully follow label instructions. **DO NOT USE THESE PRODUCTS ON PETS WITH RAW SKIN OR OPEN SORES. DISCONTINUE THEIR USE IF YOU NOTICE SKIN IRRITATION OR ALLERGIC REACTIONS AND CONSULT WITH YOUR VETERINARIAN.**

Wash or change your pet's bedding often to help prevent a flea infestation.

**IN THE HOME** - fleas can be controlled in your house by daily, thorough vacuuming of floors, carpets, furniture, and other infested areas. After vacuuming, immediately remove and seal the vacuum bag. Place the vacuum cleaner bag in a sealed plastic trash bag to prevent fleas from escaping. If the fleas are really bad, steam cleaning or shampooing carpets or furniture should be considered before applying other controls.

### BEGIN YOUR FLEA PREVENTION EARLY

**FLEA PREVENTION AND CONTROL** should begin before flea season (spring and summer) and continue to eliminate fleas before they become a problem. If the described treatments do not adequately control fleas on your pet or in your home, the use of flea powders, dips, soaps, or other insecticides may be needed. Consult your veterinarian if your pet's flea problem persists.

**CHEMICAL FLEA CONTROL** - may be considered if a flea problem persists. Chemical flea control should be aimed first at flea larvae at newly hatched fleas in infested areas and then at the fleas on your pet. Treat your house, yard and pet the same day. Repeat the treatment as allowed by label specifications until there is no longer a flea problem. **CAUTION: KEEP ALL INSECTICIDES OUT OF THE REACH OF CHILDREN AND PETS.**

**CAREFULLY READ AND FOLLOW LABEL DIRECTIONS BEFORE APPLYING ANY INSECTICIDE.**

*Staff of the Vector Surveillance and Control Division are available to answer your questions regarding fleas.*

## EXPOSURE TO PLAGUE - HOW YOU GET IT

People can get the disease from animals in several ways. The most important routes of transmission are:

1. BITES OF FLEAS FROM INFECTED RODENTS.
2. DIRECT CONTACT WITH SICK OR DEAD ANIMALS.



Hungry fleas will leave a sick or dead rodent and can bite people.



The plague bacteria in the blood, urine, or saliva of an infected animal can enter cuts and abrasions in the hands.

3. PET INVOLVEMENT. (1) Infected rodent fleas can be brought into a home or campsite by a dog or cat. (2) Plague pneumonia can be caught from a sick cat that is coughing and sneezing.



## GENERAL PRECAUTIONS

- Contact a physician immediately if you become ill within 7 days after possible exposure to plague (see early plague symptoms). Tell the doctor where you have been and what you have done that may have exposed you to plague.
- Use caution when handling a sick pet that has been in a plague area, especially a cat. Avoid close face-to-face contact. Consult a veterinarian. Inform the vet that the animal has been in a plague area.
- Avoid all contact with rodents and their fleas. Do not touch sick or dead rodents. Report them to rangers or health authorities.

## WHERE YOU WORK OR PLAY

- Do not camp, sleep, or rest near animal burrows.
- Do not feed rodents in campgrounds and picnic areas. Store food and refuse in rodent-proof containers.
- Wearing long pants tucked into boot tops can reduce your exposure to fleas. Insect repellent sprayed on socks and trouser cuffs also may help.
- **LEAVE PETS AT HOME** if possible. If not, keep pet confined or on a leash. Do not allow pet to approach sick or dead rodents or to explore rodent burrows. Protect pet with flea powder (flea collars alone are too slow acting).
- **HUNTERS AND TRAPPERS:** Use rubber gloves when skinning and cleaning rodents, rabbits, wild pigs and carnivores. Cook these animals thoroughly.



## ANIMALS WHICH CARRY PLAGUE

The most important *wild rodents* that can carry the disease are ground squirrels, chipmunks, woodrats, and mice. Plague is lethal to many rodents; therefore, any sign of sick or dead rodents is a warning that plague may be in the area.

*Other wild animals* -- especially rabbits, carnivores (including coyote, bobcat, badger, bear, gray fox, and skunk) and wild pigs -- can also acquire plague but usually recover.

*Domestic animals* can acquire plague and pose a direct threat to humans. Dogs rarely become ill, but cats are highly susceptible and can be severely ill. Pets can carry rodent fleas from the field into homes or campsites. If a cat develops plague pneumonia, it can infect humans by coughing and sneezing.

## THE EARLY SYMPTOMS OF PLAGUE

In humans, the initial symptoms of plague include chills, fever, headache, muscle aches, a feeling of weakness and, commonly, swollen and tender lymph nodes (called "buboes"). This stage is called *bubonic plague*.

**CONTACT A PHYSICIAN IMMEDIATELY IF YOU BECOME ILL WITHIN 7 DAYS OF BEING IN A PLAGUE AREA.** The usual incubation period is 2 to 6 days. Plague is curable when diagnosed early. You can help your doctor with the diagnosis by telling him where you have been and what you have done that may have exposed you to plague.

If it is not treated in time, bubonic plague can progress to *pneumonic plague* (plague pneumonia) and/or to *septicemic plague* (bloodstream infection).

A cat with plague will become very ill, may stop eating and will have a fever. Swollen lymph glands may occur, generally in the neck area. **INFORM YOUR VETERINARIAN IF A PET BECOMES SICK FOLLOWING A VISIT TO A PLAGUE AREA.**

## ROLE OF THE HEALTH DEPARTMENT

Local health officials monitor plague activity in San Diego County. Rangers, park personnel, and others are trained to watch for sick or dead rodents or other evidence that plague may be active in a particular area and to report their findings to health authorities.

Health authorities will institute preventive measures when animal plague is found in areas with human exposure. Warnings will be posted. After careful evaluation, the area may be quarantined and insecticides may be used to reduce human exposure to flea bites.

Insecticide dust is applied into rodent burrows or into containers called "bait stations". Rodents enter the bait stations and get flea powder on their fur. They then carry the insecticide on their fur back to the nest, killing fleas inside the burrows and in the nests. This method of flea control is very effective, uses a minimum of insecticide and does not harm the rodents. **IF YOU SEE A BAIT STATION, PLEASE DO NOT DISTURB IT.**

Additional information on plague and other vector-borne diseases can be obtained by contacting: